

Book Reviews

Chemotherapy of Urogenital Tumors.

GERALD P. MURPHY and ARNOLD MITTELMAN (1975). U.S.A.: C. C. Thomas. pp. 268. Price £11.05 net.

This short monograph sets out to evaluate the chemotherapy of urogenital neoplasms as it currently exists. The previous chemotherapeutic programmes which have been employed are analysed by tumour site and prospective studies are suggested. The various protocol studies currently in use are presented in detail. The results of the present modes of management of urogenital tumours are briefly presented and the role of adjuvant chemotherapy, in an effort to improve them is discussed. Tumours of the urothelium continue to present a major problem and present chemotherapeutic regimens remain in a disappointingly early stage of development. This book will be of value as a reference volume to clinicians engaged in the management of these tumours.

R. S. POINTON

Polyamines in Normal and Neoplastic Growth.

(Proceedings of a Symposium of the National Cancer Institute, U.S.A.) Ed. DIANE H. RUSSELL (1973). New York: Raven Press. pp. 429. Price £10.05 net.

This symposium provides a very useful source of information which puts a rapidly growing field of research into perspective at the time the meeting was held. The book opens with a helpful and interesting historical account and brief review of the general field, but at this point the opportunities to include clear representations of the formulae of key compounds and of the pertinent metabolic pathways are missed. In fact such a metabolic chart is eventually given, but it appears unannounced at the end of the text and preceding the index.

The scope for research in this general area of polyamine metabolism is clearly indicated by the wide variety of selected materials which cover the broad areas of cellular differentiation, hormonal responses,

protein and nucleic acid synthesis, viruses and the diagnosis of malignant disease. Some grouping of the subject matter would certainly have improved the presentation for the general reader. The methodology for polyamine estimation would have been better grouped into one sub-section and one wonders why for instance are the contributions dealing with central nervous tissues and with viruses (three in each case), so widely separated from each other? The very last chapter is an excellent short review of RNA tumour viruses and their possible relationship to human leukaemias but some attempt to relate this field to the subject of the symposium would have been welcome.

The opportunities for further fundamental research are clearly indicated by several contributions on the effects of polyamines on RNA synthesis and by an illustration that the control of transcriptional and post-transcriptional protein synthesis can be modified *in vivo* by treatment with exogenous chemicals. Possibilities for the future control of growth mechanisms are implied in this type of approach.

Quite a substantial part of the symposium was devoted to polyamine metabolism in normal and malignant cells and to an assessment of polyamine levels in body fluids as a potential method for the diagnosis of malignant disease. This collected information provides a good basis for those who wish to interest themselves further in this field.

P. J. O'CONNOR

Receptor-Specific Proteins. Plant and Animal Lectins.

E. R. GOLD and P. BALDWIN. (1975) Amsterdam and New York: Excerpta Medica, Elsevier Publishing Co. Inc. pp. 440. Price \$51.95 net.

In the terminology of the authors, "receptor-specific proteins" designates all agglutinating or precipitating agents of non-immune origin, but excludes proteins of known biological function such as enzymes

or neural transmitters. The sub-title "Plant and Animal Lectins" possibly conveys more clearly what the book is about. It is an authoritative survey of agglutinating and precipitating agents found throughout the plant and animal kingdoms. These substances are discussed systematically with reference to the taxonomic phyla and classes from which they are obtained.

The first chapter gives useful introductory remarks on taxonomy, terminology and methods of measuring haemagglutination. There follow chapters on receptor-specific proteins from viruses, bacteria, algae lichens and fungi, plants, protozoa, invertebrates, mollusca and lower vertebrates. At the end of each chapter there is a list of agglutinins classified according to their biological origin; when known, the blood-group specificity and chemical specificity are given, with references to original sources of information.

The authors point out that there is so much information on plant lectins that they really require a separate monograph, so they do not attempt to review the whole field. Instead, they give brief reviews of the initial discovery and characterization of plant lectins and of the later "serological" period of research into blood-group specificities. They then review present knowledge of Concanavalin A, possibly the best understood representative of the plant lectins. It may disappoint some readers that other plant lectins, such as wheat germ agglutinin, are not discussed in such detail, but by adopting a selective approach, the authors have been able to treat less accessible topics more fully.

The bibliography is very extensive, covering a wide spectrum of scientific and medical literature over a period extending from about 1890 to 1972. A summary of principal developments in 1973 and 1974 is added at the end of each chapter. Though up-to-date information is presented, early papers are not neglected; the contributions of pioneers in the field are always given proper acknowledgment.

Drs Gold and Baldwin have produced a reference work which is unique in its comprehensive treatment of animal and plant lectins. The growing number of research workers using lectins as probes of cell surface structure will welcome such a rich source of information.

G. W. BAZILL

A Colour Atlas of Neoplasia in the Cat, Dog and Horse. D. E. BOSTOCK and L. N. OWEN. (1975). London: Wolfe Medical Publications Ltd. pp. 144, 292 illus. Price £14.50 net.

This is a pictorial survey, supported by a brief but informative text, of the typical macroscopic and histological appearances of the important tumours (and tumour-like conditions) of dogs, and, to a lesser but still useful extent, of those of horses and cats. While it will be of most relevance in the work of the practising veterinary surgeon, whose canine and feline patients, as a result of the successful use of vaccines and antibiotics, are increasingly tending to survive into the "cancer age", it still has much to offer those pathologists and oncologists who are interested (and who nowadays is not?) to know what animal models are available for comparative oncological studies. As the authors point out, tumours encountered in veterinary practice, unlike the experimentally-induced tumours of laboratory animals, or spontaneously-occurring tumours in inbred strains, approach "the human situation very closely in that they arise spontaneously in an outbred population which, in the case of the dog and cat, shares a similar environment to man".

Some twenty years ago, the reviewer found it possible to survey, in quite a slim monograph, the bulk of the important papers that had been published up to that time on tumours of domesticated mammals, and Moulton's 1961 text book ("Tumours in Domestic Animals") gave a more comprehensive illustrated coverage of the field. Since that time, there has been a great increase in the work done, and papers published, on spontaneous neoplasms in animals, and for access to the more recent literature the comparative oncologist will need to turn to such publications as "Index Veterinarius", for this Atlas contains no references. However, what it does do very well is to give in handy (though perhaps overlavishly produced and expensive) form a well illustrated survey of the gross appearances of the important tumours of the species concerned, together with some six score photomicrographs showing their typical histology, along with information about the occurrence, prognosis and treatment of such tumours.

The colour rendering is mostly satisfactory and some of the pictures seem